EFFECT OF TRAINING PROGRAMME ON DEVELOPING FUNCTIONAL SIGN LANGUAGE AMONG PARENTS OF STUDENTS WITH DEAFNESS

By

N.R. BHUVANESWARI *

ABHISHEK KUMAR SRIVASTAVA **

* Resource Teacher, RMSA-IEDSS, CSI Girls Higher Secondary School, Coimbatore, India.

** Assistant Professor, Department of Empowerment of Persons with Disabilities, Indian Sign Language Research and Training Centre, New Delhi, India.

ABSTRACT

Parents' involvement is highly needed for ensuring holistic development of their words; however parents can only assist the child when they themselves have adequate knowledge, required skills, and proper awareness regarding various aspects of children's growth and development. To have adequate communication skill among parents, ensuring better language and communication in their words is one of the most significant aspects. Hence, the present study seeks to examine the impact of training programme on developing functional Sign language among parents of students with deafness. Pre-test-post-test experimental design was employed for the study. Samples were selected through convenient sampling. The collected data were analyzed using t-test. Results show statistically significant difference between pre and post test scores of functional Sign language of parents of students with deafness post intervention. However, no significant difference was found out between pre and post test scores of functional Sign language of parents of students with deafness after training programme with reference to their educational status, gender, age, and locality. The findings are presented and discussed as to justify the need for training parents in functional Sign language to develop their communicative skills properly which in turn can ensure better communicative and other allied skills in their words.

Keywords: Functional Sign Language, Parents of Students with Deafness.

INTRODUCTION

Communication is the process to exchange our ideas, thoughts, views and opinions and to express our needs, emotions, and feelings. That is why communication is the prime need of every human being. Language is the primary medium of communication. Therefore, language is hugely important in all aspects of human life. The importance of language lies in the fact that it is both a discipline to be learnt as well as a medium to learn other subjects. For the majority of children with profound deafness belonging to low socio-economic strata of society, Oralism, a method of communication to teach children with hearing impairment, has been unsuccessful and consequently, they did not acquire adequate social, academic, and cognitive skills.

It has been documented repeatedly that deaf children lag substantially behind their hearing age mates in virtually all measures of academic achievement. Congenital deafness makes it impossible for a child to acquire naturally spoken language as hearing children do. Indeed, studies of the spoken language proficiency of deaf children at various ages show that this acquisition is painfully slow even with residual hearing, hearing aids, and visual lip-reading (Schlesinger & Meadow, 1972b, Meadow, 1972). Gentile (1972) found that the performance of deaf students in the Stanford Achievement Test (SAT) was markedly less in spelling, paragraph comprehension vocabulary, mathematical concepts, mathematical computation, social studies and science. Such documentation represents the failure of Oralism. It is also repeatedly observed that a group of deaf children whose deaf parents use Sign language are superior to a group of deaf children, whose hearing parents provided them with early and intensive oral training in communication and language.

The rate at which children develop language is related to the nature of their interaction with their parents. Children develop language more quickly if their parents talk to them, but more specifically if their parents respond to their interests, for example by naming what they are actually looking at rather than something else. Parents and infants who develop the ability to engage with each other in a dynamic way, following with each other's leads from one focus of attention to the next, seem to foster language development most effectively (Hoff & Naigles, 2002). Parental communication skill significantly predicts deaf children's positive language and academic development (Calderon, 2000). Often, deaf children do not have clear or direct access to their parents' language. In order to provide sufficient communication, parents must be attuned and responsive to their child's needs. By recognizing the importance of communication and the child's communication needs, parents can foster more positive educational outcomes. When comparing Deaf Children of Deaf parents (DoD) and Deaf children of Hearing parents (DoH), research has found that DoD generally outperform DoH children in future linguistic and academic success related to their ASL abilities (Meadow, 1968; Quigley & Frisina, 1961; Stevenson, 1964; Strong & Prinz, 1997; Stuckless & Birch, 1966). Additionally, parental hearing status has been found to have an effect on ASL and English abilities, indicating that deaf parents are more likely to aid in the development of ASL (Mounty, Nover, & Pucci, 2008). In studies with hearing children, maternal education level has been found to be a strong predictor of children's academic success (Stevenson & Baker, 1987). However, Calderon (2000) found that maternal education level alone did not predict deaf children's ASL and reading skills. Instead, Calderon reported that while a mother's education level was important, the quantity and quality of mother-child communication had a stronger impact on the child's academic outcome. The criterion of having deaf Signing parents creates the socio-cultural experience of full access to a visual language by adults who understand how to guide visual attention and scaffold visual language during the

critical period of language acquisition (Corina & Singleton, 2009; Mayberry, 2007).

1. Rationale of the study

For parents, it is essential to develop skills in Sign language that will enable them to interact with their Deaf child. Berke (2009a and b) reported that some parents do not use Sign language, which is the child's primary means of communication if they do learn it, their mastering of it is minimal. These parents may have their reasons for not learning Sign language or becoming fluent in it. However, the resulting communication gap has been known to harm both familial relations and academic progress of children. Parent's involvement is very much needed in the overall development of any child. So far as language and communication skill is concerned, parents can assist the children only when they themselves know the language and communication mode of children with hearing impairment. Since over 90% of children with hearing impairment are born to hearing parents, these parents do not know how to communicate with the children in the language which their children seek (Moores, (1978, 2001)). This leads to a number of problems in students with deafness because parents are not able to understand them, their needs and emotions. Hence a need was felt to assess the effect of training programme for developing functional Sign language among hearing parents of students with deafness so that they can communicate in a better way with their words, which in turn can be of great importance for their students with deafness in every aspect of development.

2. Objectives

- To find out the effect of training programme on developing functional Sign language among parents of students with deafness.
- To find out the effect of training programme on developing functional Sign language among parents of students with deafness with respect to gender, age, and locality.

After reviewing a great deal of existing literature, the following hypotheses were framed:

3. Hypotheses

- There will be no significant difference between pre and post test scores of functional Sign language among parents of students with deafness after training programme.
- There will be no significant difference between pre and post test scores of functional Sign language among parents of students with deafness after training programme with respect to gender, age, and locality.

4. Method

4.1 Research Design

The research design employed for the present study is pre test-post test experimental design.

4.2 Sampling Technique

The sampling technique adopted for the present study was convenient sampling, since the data was collected from a school of Coimbatore, where the parents of students with deafness accompanied their words.

4.3 Participants and Details of Demographic Variables

Using convenience sampling technique, the target sample recruited for this study covered 60 parents of students with deafness from Coimbatore district as sample. This included 32 mothers (Range: 20-48 years; Mean Age: 32.5) with randomized educational, family, and socio-economic status backgrounds.

The following criteria were used to select the subject for the present study.

- The parents of students with deafness should be Tamil speaking.
- Those parents of students with deafness selected words, which were severe to profound hearing loss.

4.4 Construction of Research Tools

The research tool was prepared by the investigator. For the tool, total 100 common words were selected based on 7 domains from Indian Sign Language dictionary published by Ramakrishna Mission Vidhyalaya University, Faculty of Disability Management Special Education tool. Out of these 100 words, the investigator framed 60 sentences consisting of declarative, imperative,

negative and interrogative sentences used in our daily life. The final research tool was constructed on the basis of the response of 11 judges. The tool was translated into Tamil since the samples belong to Tamil speaking belt.

5. Data Collection Procedure and Analysis

Informed consent was undertaken and response anonymity was assured as per mandated ethical guidelines. Pre-test was conducted to identify the current level of Sign language among parents of students with deafness. The researcher found that maximum number of respondents scored minimum score. After pre-test, the investigator provided 10 days intensive training about lexicons and different kinds of sentences in Indian Sign Language. Each day, one session was taken for training and each session consisted of two hours in which one hour was devoted to teach the concept and sentences, and last one hour was devoted for doubt clarification, question answers session, and practice in order to recapitulate the sentences taught. After tenth day of the training, the investigator administered the same tool to conduct posttest. For post-test, the investigator took a five days time in which each parents was Signing for 60 sentences and investigator was ticking [(+), (-), (+/-)] to record the responses of the sample. For a fully correct answer, a score of '2' was awarded. For a partially correct answer, a score of '1' was awarded and for wrong answer, a score of '0' was awarded. The collected data were then compiled, catalogued, coded, and classified into empirical categories before-undertaking their analysis or interpretation. The pre-test score and post-test score were compared and analyzed to find the effect of training

SI. No.	Domains	No. of Sentences
1	Educational terms and school items	10
2	Religion and festivals	7
3	Beverages	9
4	Time	7
5	Dishes and spices	10
6	Vegetables	10
7	Fruits	7
	Total	60

Table 1. The Number of Sentences made by the Investigator before Validation

programme on developing functional Sign language among parents of students with deafness.. The t-test was applied to get the hypotheses tested. Table 1 shows the number of sentences made by the investigator before validation.

6. Results and Discussion

The major objective of the study was to find out the effect of Sign language training programme among parents of students with deafness; null hypothesis framed was that there will be no significant difference between pre and post test scores of functional Sign language among parents of students with deafness after training programme. To test the null hypothesis, "I test was applied.

It is observed from Table 2 that the calculated "t value is 2.471 and the table value is 1.96. Since the "t value is higher than the table value, null hypothesis falls under rejection region. Hence the null hypothesis is rejected. It shows that there is a significant difference between pre and post test scores of functional Sign language among parents of children with deafness after training programme, which is depicted in Figure 1.

The result of the present study clearly reveals that there is a positive effect of Sign language training programme on functional Sign language skills of parents of students with deafness. Santarcangelo and Dyer (1978) in their study tried

Gender	N	Mean	SD	Df	't'-value	Result
Pretest	60	8.642	2.146	59	2.471	Significant at 0.05 level
Post test	60	13.473	2.334	59		

Table 2. 't' test Analysis of Pre and Post Test Scores of Functional Sign Language among Parents after Training Programme

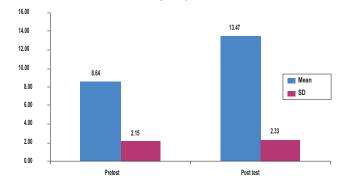


Figure 1. Pre and post test scores of functional Sign language among parents of students with deafness

to know the similarities and differences of parent's communication styles and found that the parents of children with and without hearing impairment, there was no differences, the communication skills to deal with their words were almost the same. In the congruence of the present study, Schlesinger and Meadow (1972a) found the same thing in their study on parents and pre-school intervention programme and reported that communication frustration can easily be removed when the parents in general and mother in particular make use of Sign language as a medium of communication to fulfil the various needs of students with deafness. In the study, the mother was trained by the special educators and afterwards a positive effect of training was found in the communication skills of mother.

In order to study the effect of Sign language training programme among parents of students with deafness with respect to gender, age and locality, null hypothesis was framed which indicates that there will be no significant difference between pre and post test scores of functional Sign language among parents of students with deafness after training programme, with respect to gender, age, and locality. To test the null hypotheses, "It test was applied.

It is observed from Table 3 that in case of gender, the calculated "I value is 0.670 and the table value is 1.96; in case of age of parents, the calculated "I value is 1.26 and the table value is 1.96; whereas in case of locality, the calculated "I value is 1.28 and the table value is 1.96. Since in all three cases, the "I value is less than the table value, so the null hypotheses fall

Variable	N	Mean	SD	df	't'-value	Result
Gender						
Male	32	12.543	2.146	31	0.670	*Not Significant
Female	28	13.443	2.334	27		
Age						
< 35 years	34	12.348	2.487	33	1.0/	*NI=+ 0:==:6:===+
> 35 years	26	13.447	2.142	25	1.26	*Not Significant
Locality						
Rural	33	13.939	2.235	32	1.28	*Not Significant
Urban	27	13.222	2.081	26		

^{*}At 0.05 Significant level

Table 3. 't' test Analysis of Pre and Post Test Scores of Functional Sign Language among Parents with respect to Gender, Age and Locality

under acceptance region. Hence, the null hypotheses are accepted. It shows that there is no significant difference between pre and post test scores of functional Sign language among parents of students with deafness after training programme with respect to gender, age, and locality.

The result of the present study clearly reveals that there is no difference in the effect of Sign language training programme on functional Sign language skills of parents of students with deafness as far as gender of the parents is concerned. Earlier studies conducted on the learning capacity of male and female reveal that there is no difference in learning capacity of male and female. The findings of the study clearly shows that so far as age range is concerned, it has no influence on learning functional Sign language. For the present study, two age groups were selected: one below 35 years and one above 35 years and the result indicates that effect of training programme on functional Sign language of parents of children with hearing impairment does not vary as per their age-range. The results of the present study indicates that the effect of training programme on developing functional Sign language of parents of children with hearing impairment does not have any Significant difference on the basis of localities (rural and urban) they belong to. This was because of parents from both the locality were so much enthusiastic and sincere in learning Sign language.

Implication and Conclusion

Going by the theme, tenor and tone of the findings of the study, it is suggested that all the parents of students with deafness should necessarily be given intensive training so that they can communicate with their words properly and can understand their needs and emotions ensuring a holistic personality development of their words. Awareness must be created emphasizing the importance of Sign language in effective communication for the parents of students with deafness. As the result of the study reveals that there is no significant effect of educational status in learning Sign language, this type of training can be provided to each and every parent irrespective of their educational status. The parents of students with deafness should be motivated to know more about Sign language.

And finally they should be sensitized that the Sign language is not a barrier to the development, but a facilitator one in the development of their words specifically in laying the foundation of bilingualism.

References

- [1]. Berke, J. (2009a). A Study on Home Schoolers Discover Benefits of Sign, Retrieved from http://www.about.com, accessed on 23.07.2015.
- [2]. Berke, J. (2009b). "A study on why some parents do not use Sign language?" *Journal of Sign Language*.
- [3]. Calderon, R. (2000). "Parental involvement in deaf children's education programs as a predictor of child's language, early reading, and social emotional development". *Journal of Deaf Studies and Deaf Education*, doi:10.1093/deafed/5.2.140., Vol.5, pp.140-155.
- [4]. Corina, D., and Singleton, J. (2009). "Developmental social cognitive neuroscience: Insights from deafness". *Child Development*, Vol.80, pp.952-967.
- [5]. Gentile, A. (1972). "Academic Achievement Test Results of a National Testing Program for Hearing Impaired Students: 1971". Washington, D.C.: Gallaudet College Office of Demographic Studies, Series D, No 9.
- [6]. Hoff, E., and Naigles, L. (2002). "How children use input to acquire a lexicon". *Child Development*, Vol.73, No.2, pp. 418-433.
- [7]. Mayberry, R. I. (2007). "When timing is everything: Age of first-language acquisition effects on second-language learning". *Applied Psycholinguistics*, Vol. 28, pp. 537-549.
- [8]. Meadow, K. P. (1972). "Socio linguistics, Sign Language and the Deaf Sub-Culture". In: T.J. O'Rourke (ed.). Psycholinguistics and Total Communication: The State of the Art. Washington, D.C., American Annals of the Deaf, pp.19-33.
- [9]. Meadow, K. (1968). "Early manual communication in relation to the deaf child's intellectual, social, and communicative functioning". *American Annals of the Deaf*, Vol.113, pp.29-41.
- [10]. Moores, F.D. (1978). Educating the Deaf Psychology: Principles & Practices. Houghton Mifflin Company Boston.
- [11]. Moores, Donald. (2001). Educating the Deaf: Psychology,

Principles, and Practices. Boston: Houghton Mifflin.

- [12]. Mounty, J., Nover, S. M., and Pucci, C. (2008). How Deaf Children become Proficient Readers: A Socio cultural perspective. Presented at the Association of College Educators Deaf and Hard of Hearing, New Orleans, LA.
- [13]. Quigley, S., and Frisina, R. (1961). Institutionalization and Psycho Educational Development of Deaf Children. CEC Research Monograph. Washington, D.C.: Council on Exceptional Children.
- [14]. Schlesinger, H.S., and Meadow, K.P. (1972a). "A study on Parents and preschool intervention programe about communicative frustration". *Volta Review*, Vol.100, No.2, pp.87-103.
- [15]. Schlesinger, H.S., and Meadow, K.P. (1972b). "Sound and Sign: Childhood deafness and mental health".

University of California Press.

- [16]. Stevenson, E. (1964). "A Study of the Educational Achievement of Deaf Children of Deaf Parents". *California News*, Vol. 80, pp. 143.
- [17]. Stevenson, D. L., and Baker, D. P. (1987). "The family-school relation and the child's school performance. Child Development: Special Issue". *Schools and Development*, Vol.58, pp.1348-1357.
- [18]. Strong, M., and Prinz, P. (1997). "A study on the relationship between American Sign language and English literacy". *Journal of Deaf Studies and Deaf Education*, Vol.2, pp.37-46.
- [19]. Stuckless, E., and J. Birch. (1966). "The Influence of Early Manual Communication on the Linguistic Development of Deaf Children". *American Annals of the Deaf*, Vol.111, pp.425-460, 499-504.

ABOUT THE AUTHORS

N.R. Bhuvaneswari is currently working as a Resource Teacher, RMSA-IEDSS in CSI Girls Higher Secondary School, Coimbatore, Tamil Nadu, India. She has completed M.Ed. in Special Education (Hearing Impairment). She has vast experience of teaching Children with Deafness for the past couple of years.

Dr. Abhishek Kumar Srivastava is currently working as an Assistant Professor in Sign Linguistics (Deaf Studies) at Indian Sign Language Research and Training Centre, Under MSJE, Govt. of India. Formerly he was an Assistant Professor at Ramakrishna Mission Vivekananda University, Faculty of Disability Management and Special Education, Coimbatore, Tamil Nadu. He holds a master's degree in English from Banaras Hindu University, Varanasi; M.Ed. from University of Mumbai, AYJNIHH, and Ph.D. in Special Education from Ramakrishna Mission Vivekananda University. He is a gold medalist at M.Ed. from AYJNIHH, Mumbai. He has served as an Editor of a peer reviewed biannual journal namely "Journal of Disability Management and Special Education" for six years. He has qualified UGC NET twice, Tamil Nadu SLET and CTET. Dr. Srivastava has authored two chapters in edited books and published several articles. His areas of interest are Sign Language Linguistics, ELT pedagogy to Deaf and Inclusive Education.